

**FIG. 1**  
(NETWORK COMMUNICATION SYSTEM)

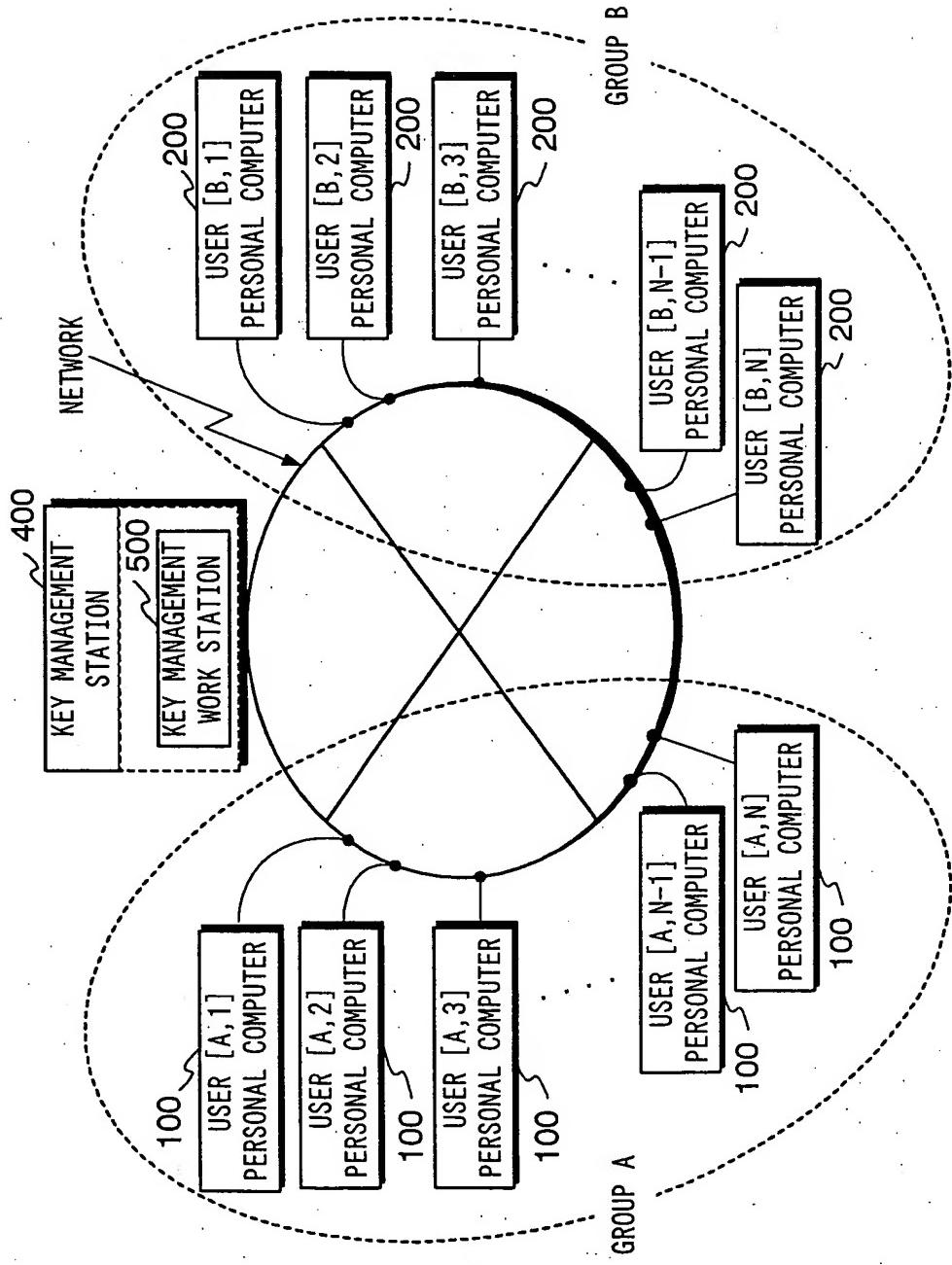
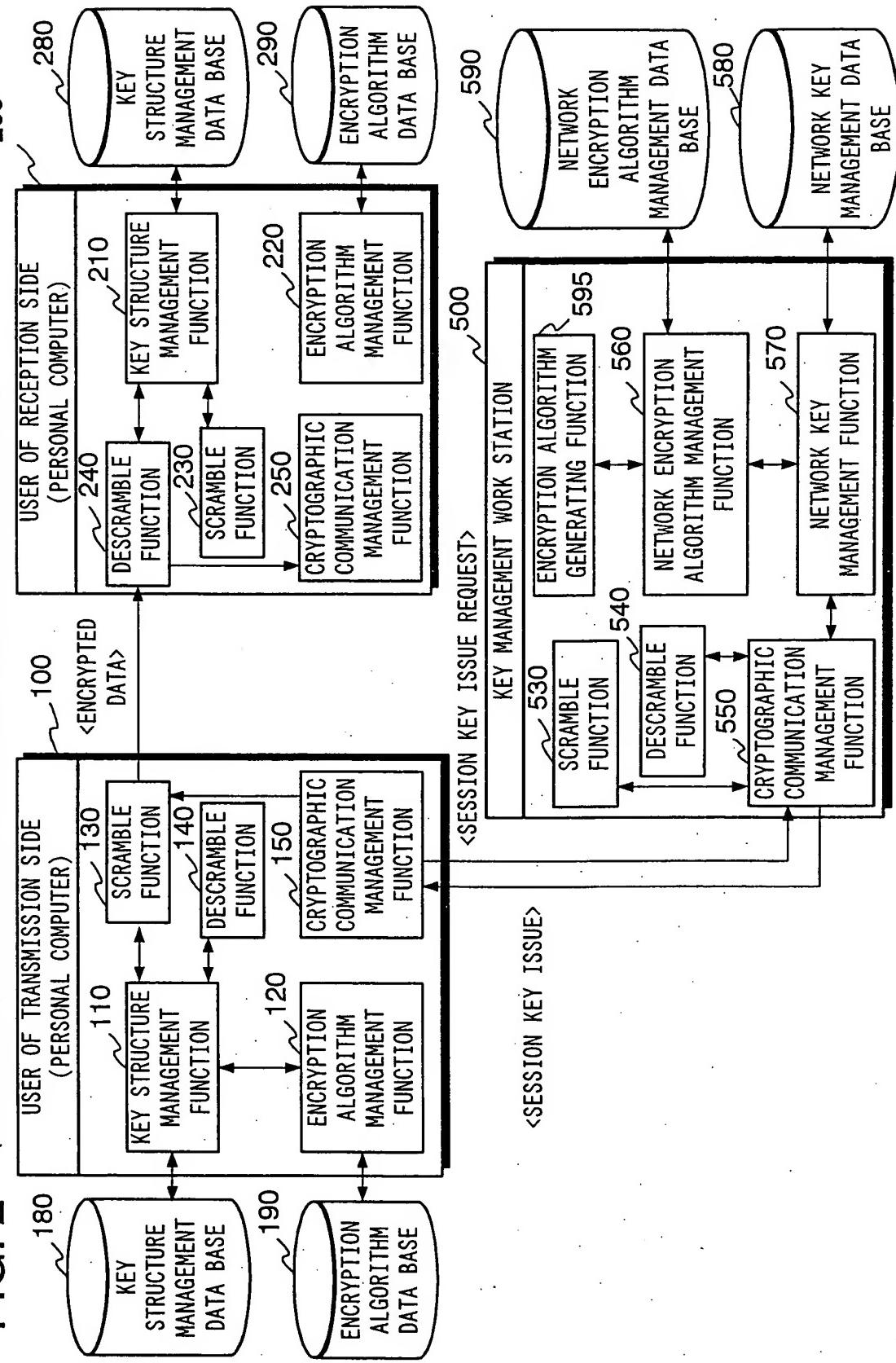


FIG. 2 (SOFTWARE FUNCTION OF NETWORK COMMUNICATION SYSTEM)



**FIG. 3A**

## NETWORK ENCRYPTION ALGORITHM MANAGEMENT DATA BASE

| USER ID                   | ENCRYPTION ALGORITHM NAME | ENCRYPTION ALGORITHM VERSION | UPDATING DATE |
|---------------------------|---------------------------|------------------------------|---------------|
| KEY MANAGEMENT STATION ID | ENCRYPTION ALGORITHM NAME | ENCRYPTION ALGORITHM VERSION | UPDATING DATE |

**FIG. 3B**

## NETWORK KEY MANAGEMENT DATA BASE

| USER ID                   | ENCRYPTION ALGORITHM NAME | ENCRYPTION ALGORITHM VERSION | KEY INFORMATION | UPDATING DATE |
|---------------------------|---------------------------|------------------------------|-----------------|---------------|
| KEY MANAGEMENT STATION ID | ENCRYPTION ALGORITHM NAME | ENCRYPTION ALGORITHM VERSION | KEY INFORMATION | UPDATING DATE |

**FIG. 4A**

ENCRYPTION ALGORITHM MANAGEMENT DATA BASE

| ENCRYPTION ALGORITHM NAME | ENCRYPTION ALGORITHM VERSION | UPDATING DATE |
|---------------------------|------------------------------|---------------|
|                           |                              |               |

**FIG. 4B**

KEY STRUCTURE MANAGEMENT DATA BASE

| ENCRYPTION ALGORITHM NAME | ENCRYPTION ALGORITHM VERSION | USER KEY INFORMATION                      | UPDATING DATE |
|---------------------------|------------------------------|---|---------------|
| ENCRYPTION ALGORITHM NAME | ENCRYPTION ALGORITHM VERSION | KEY INFORMATION OF KEY MANAGEMENT STATION | UPDATING DATE |

# FIG. 5

(OUTLINE OF ENCRYPTION ALGORITHM CONVERSION)

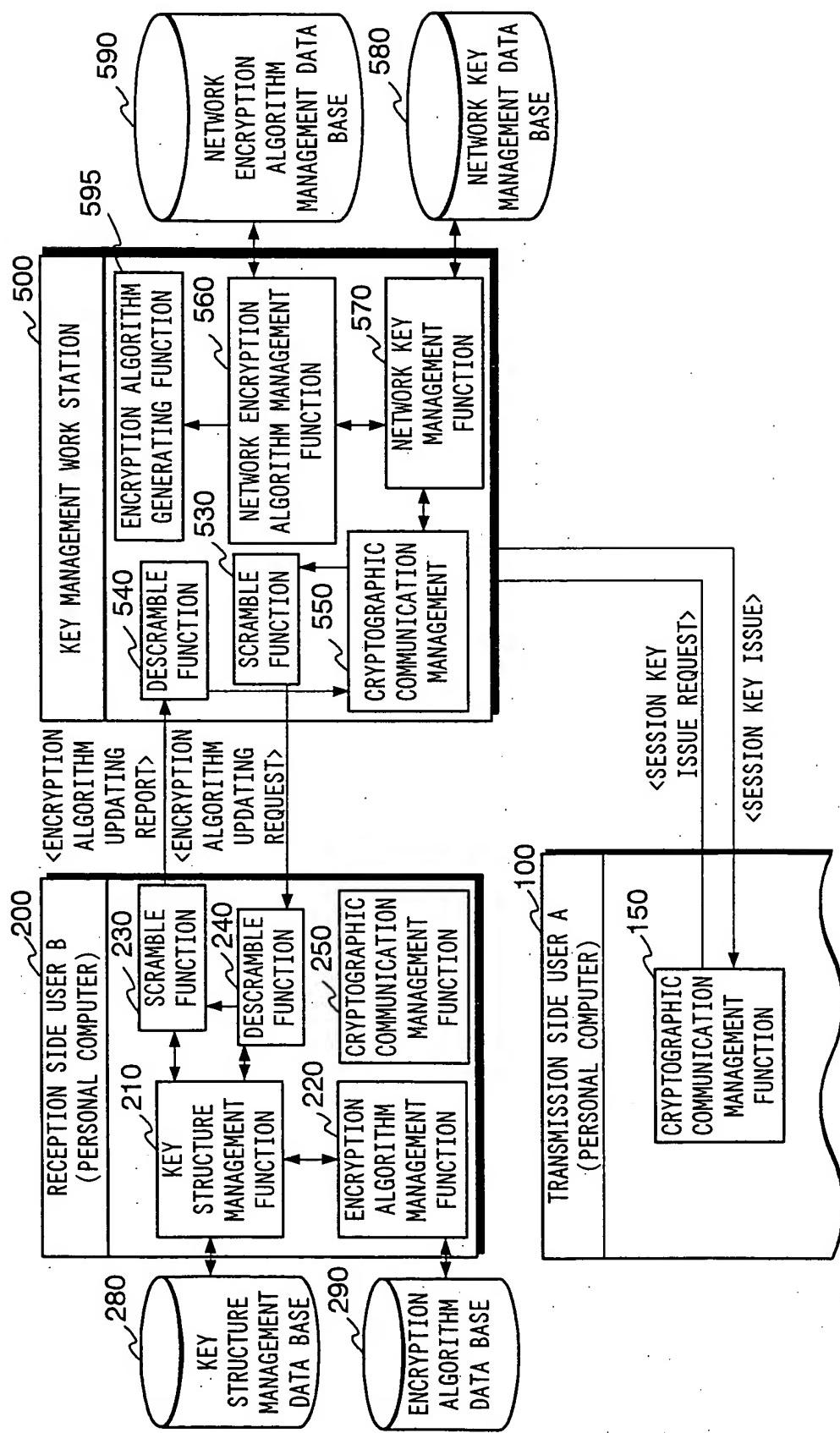
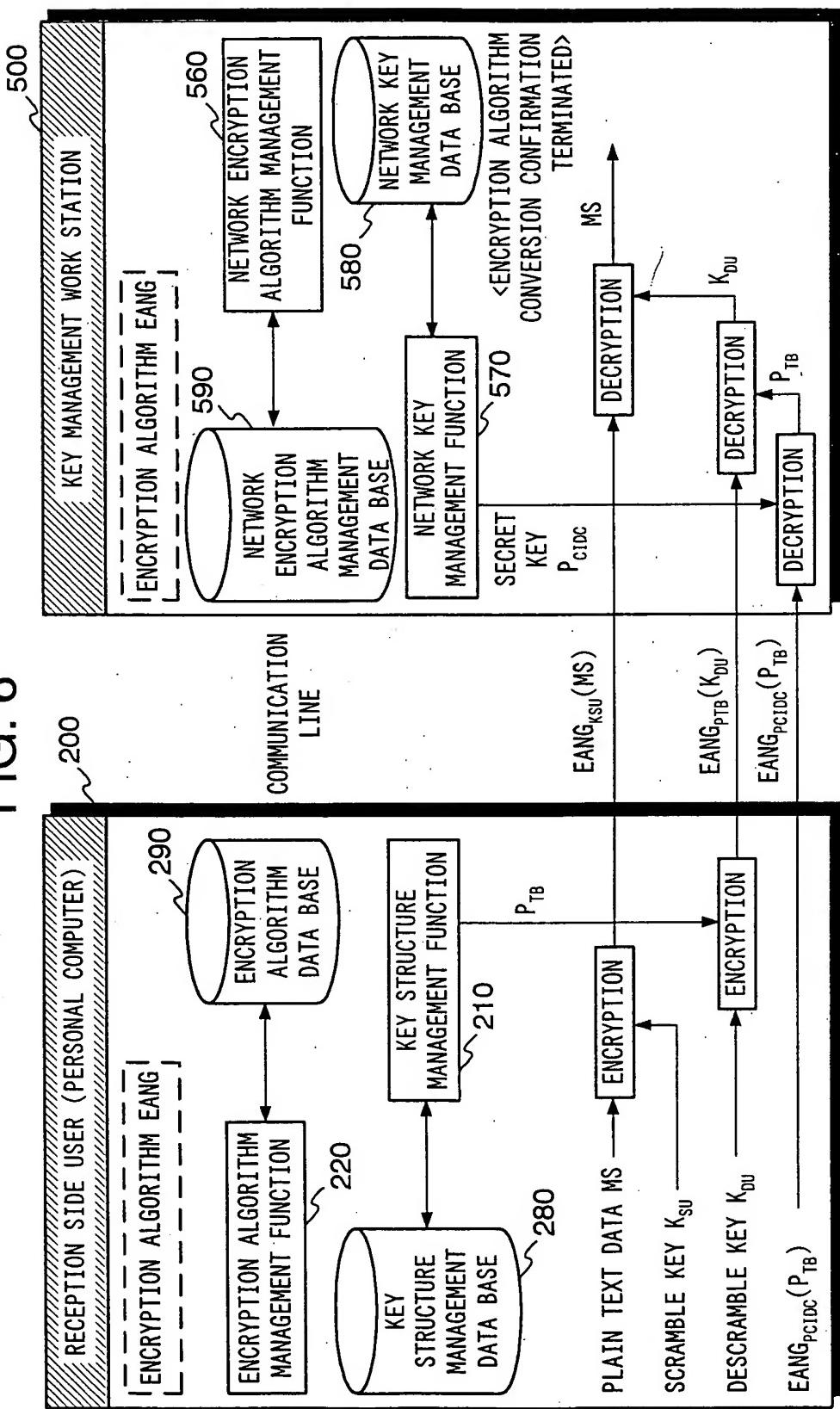


FIG. 6



**FIG. 7**  
(CRYPTOGRAPHIC COMMUNICATION BY COMMON KEY CIPHER)

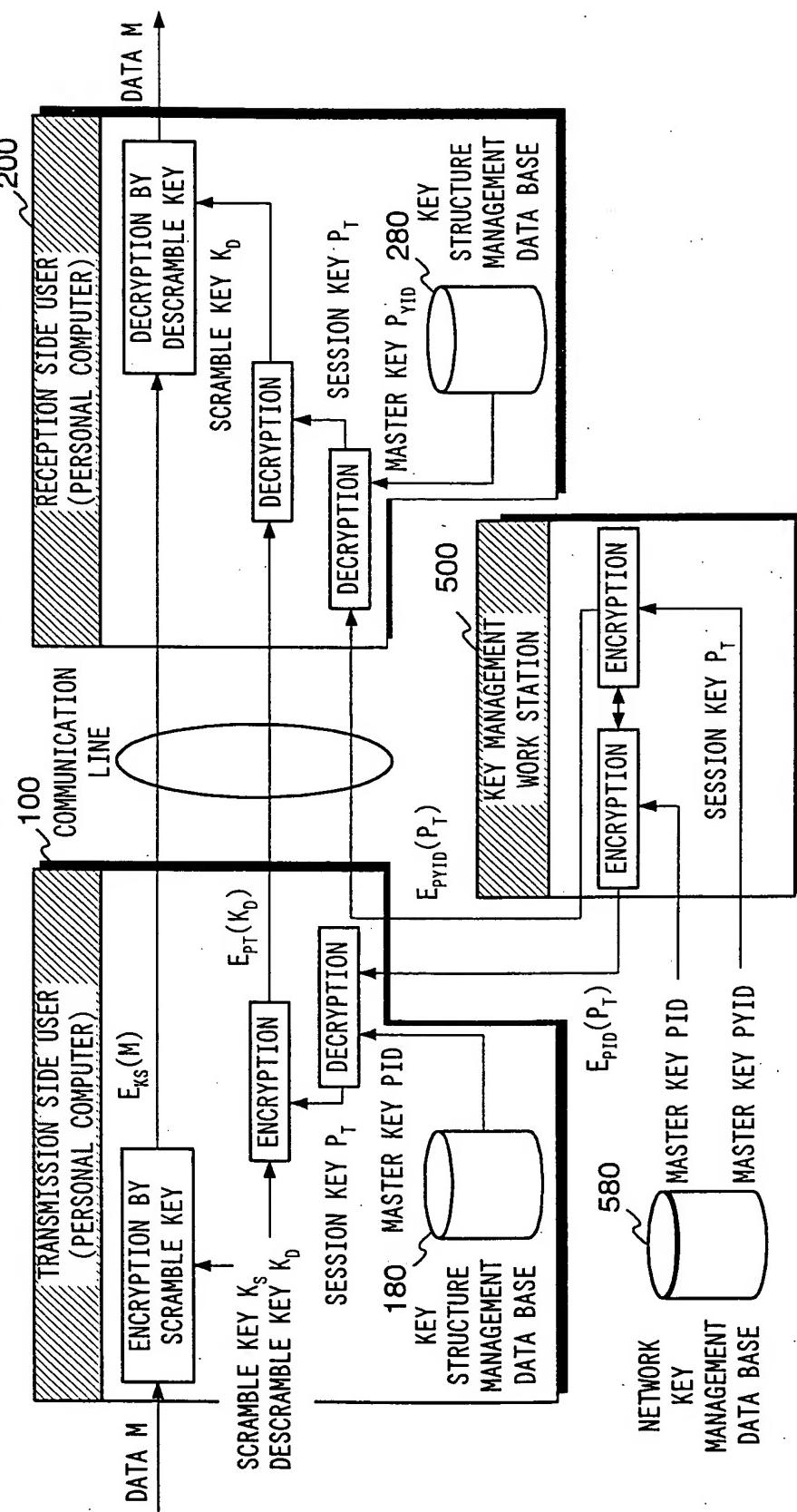


FIG. 8

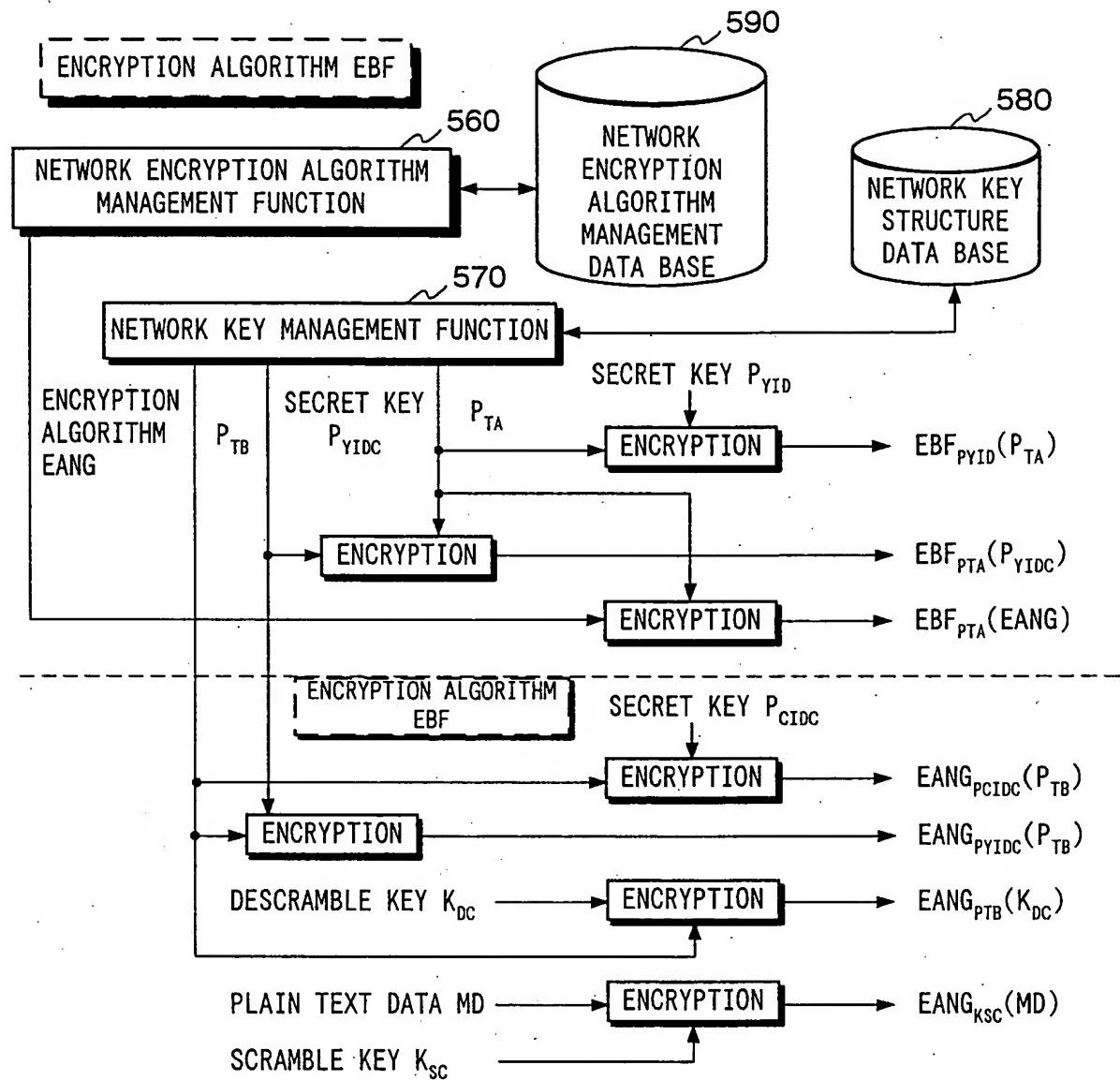


FIG. 9

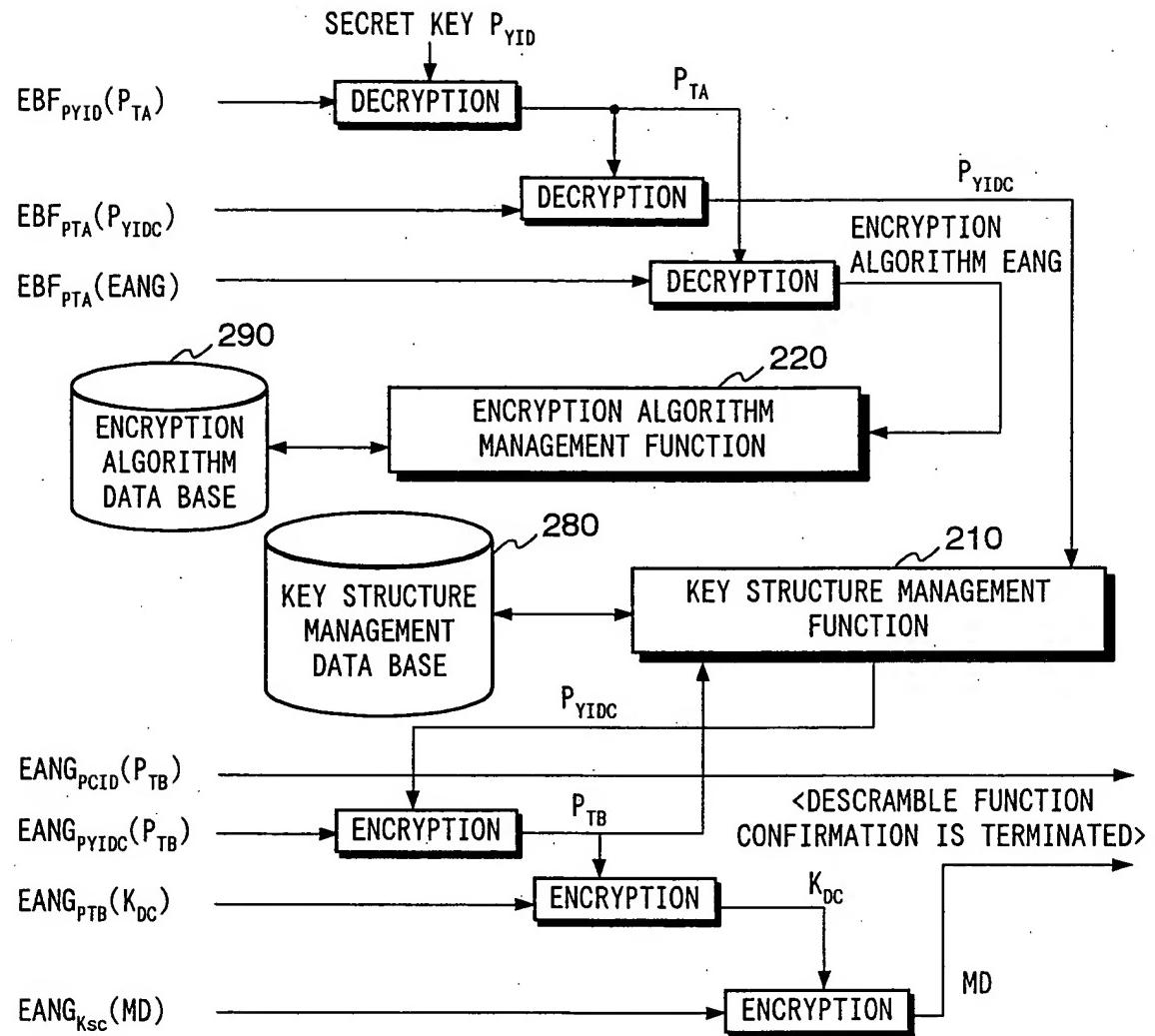
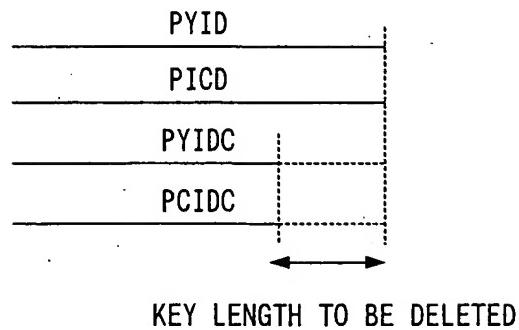
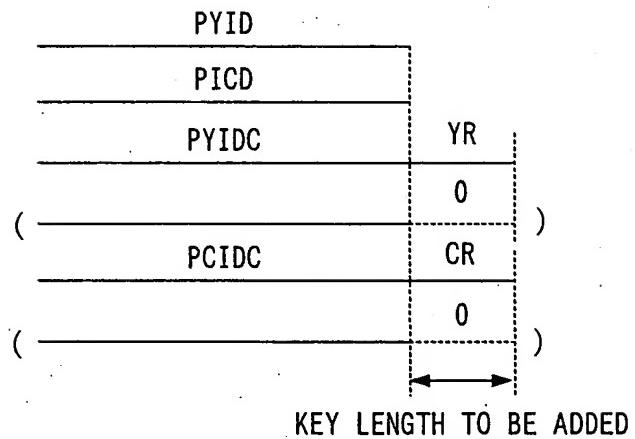


FIG. 10A



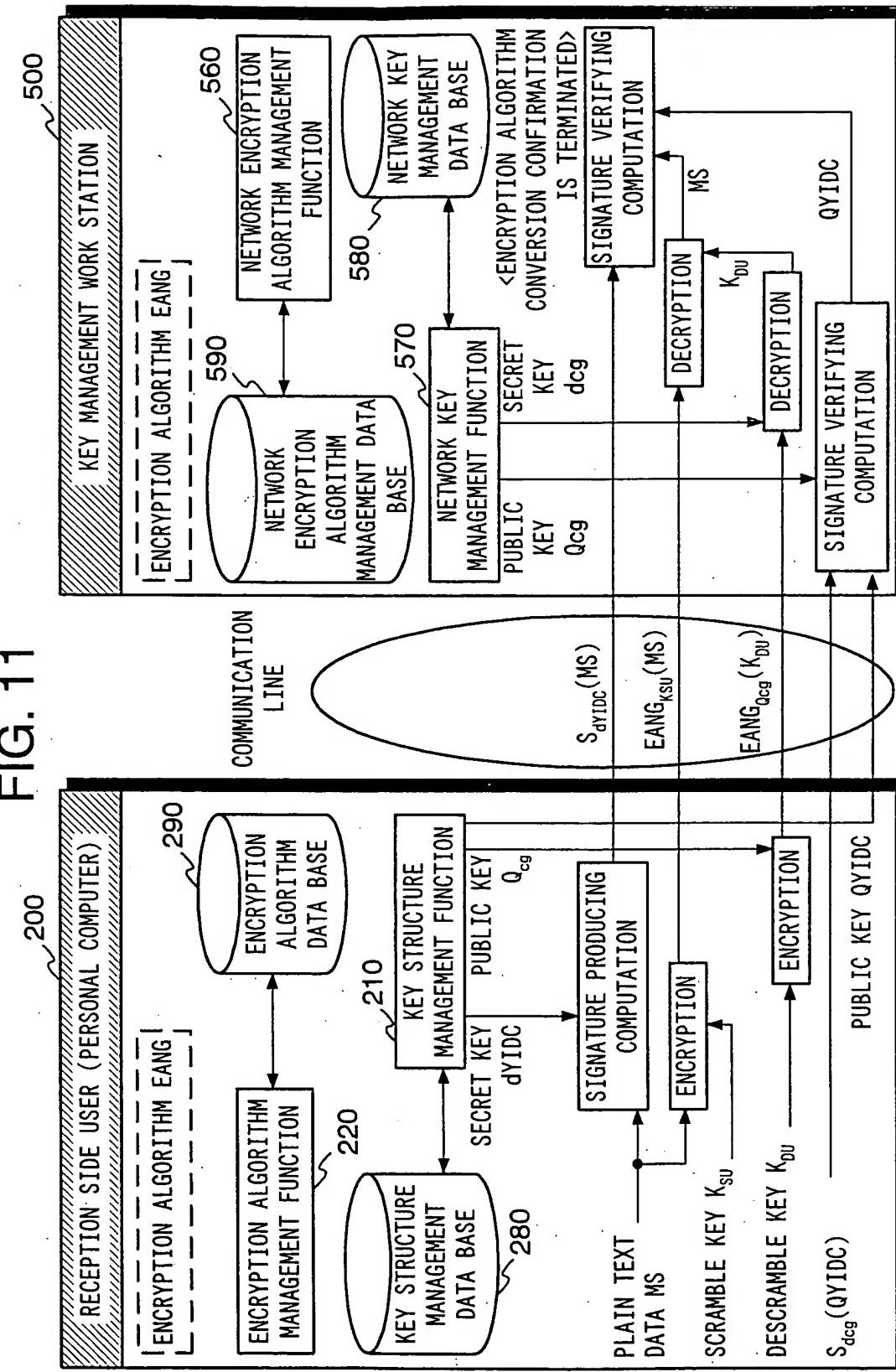
CASE WHERE THE KEY LENGTH IS SHORTENED

FIG. 10B



CASE WHERE THE KEY LENGTH IS PROLONGED

FIG. 11



**FIG. 12**  
(CRYPTOGRAPHIC COMMUNICATION BY PUBLIC KEY CIPHER)

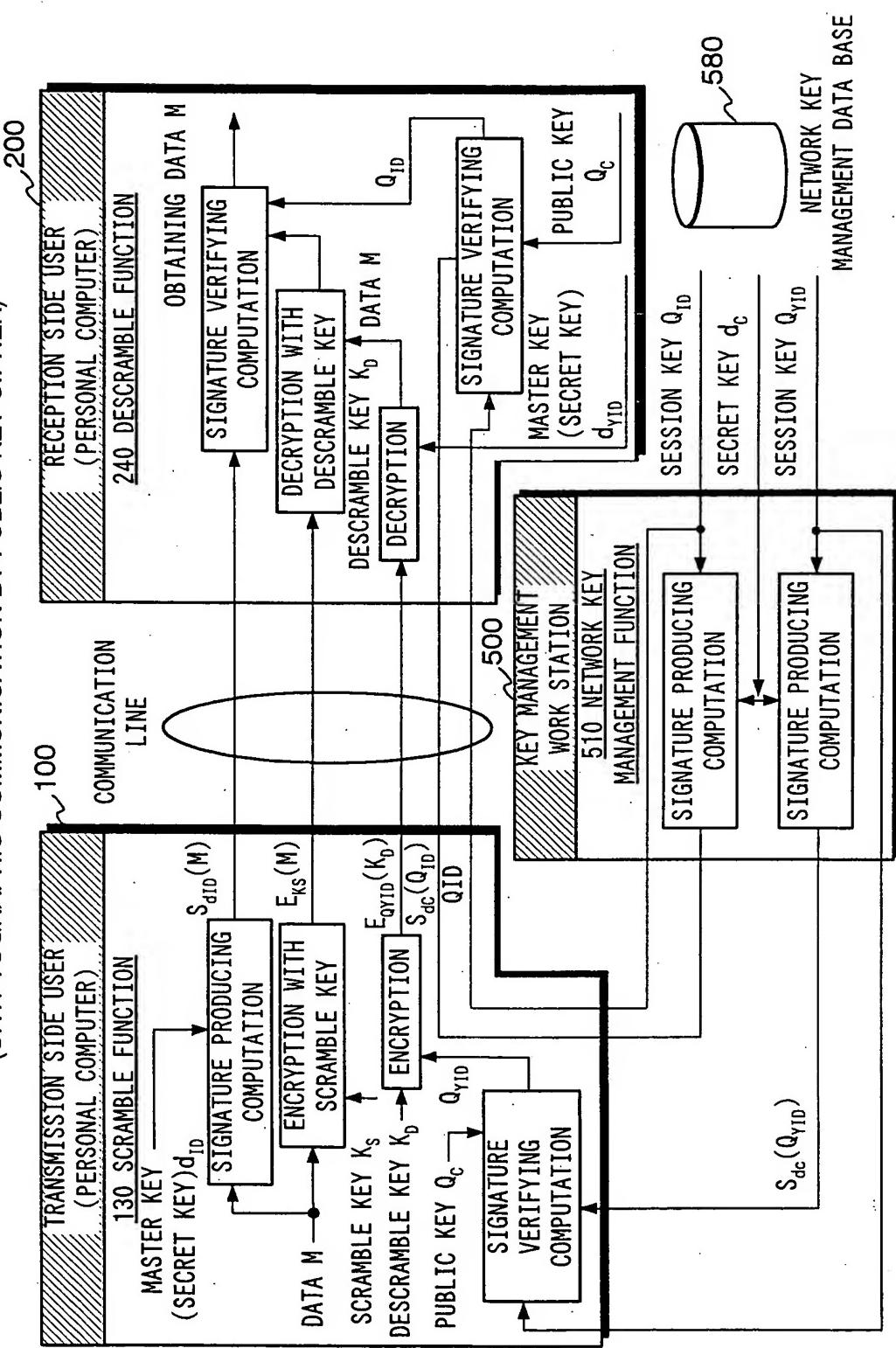


FIG. 13

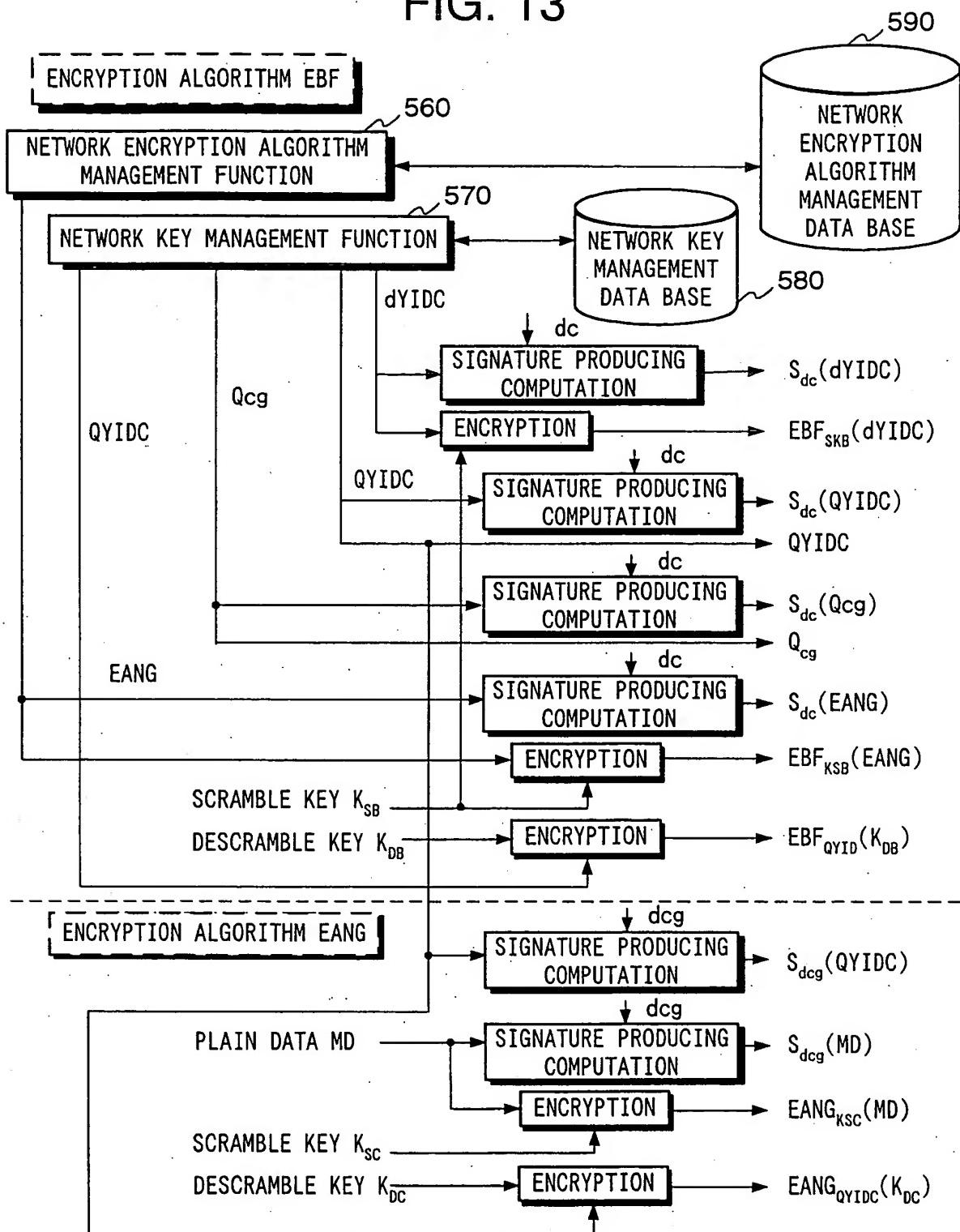


FIG. 14

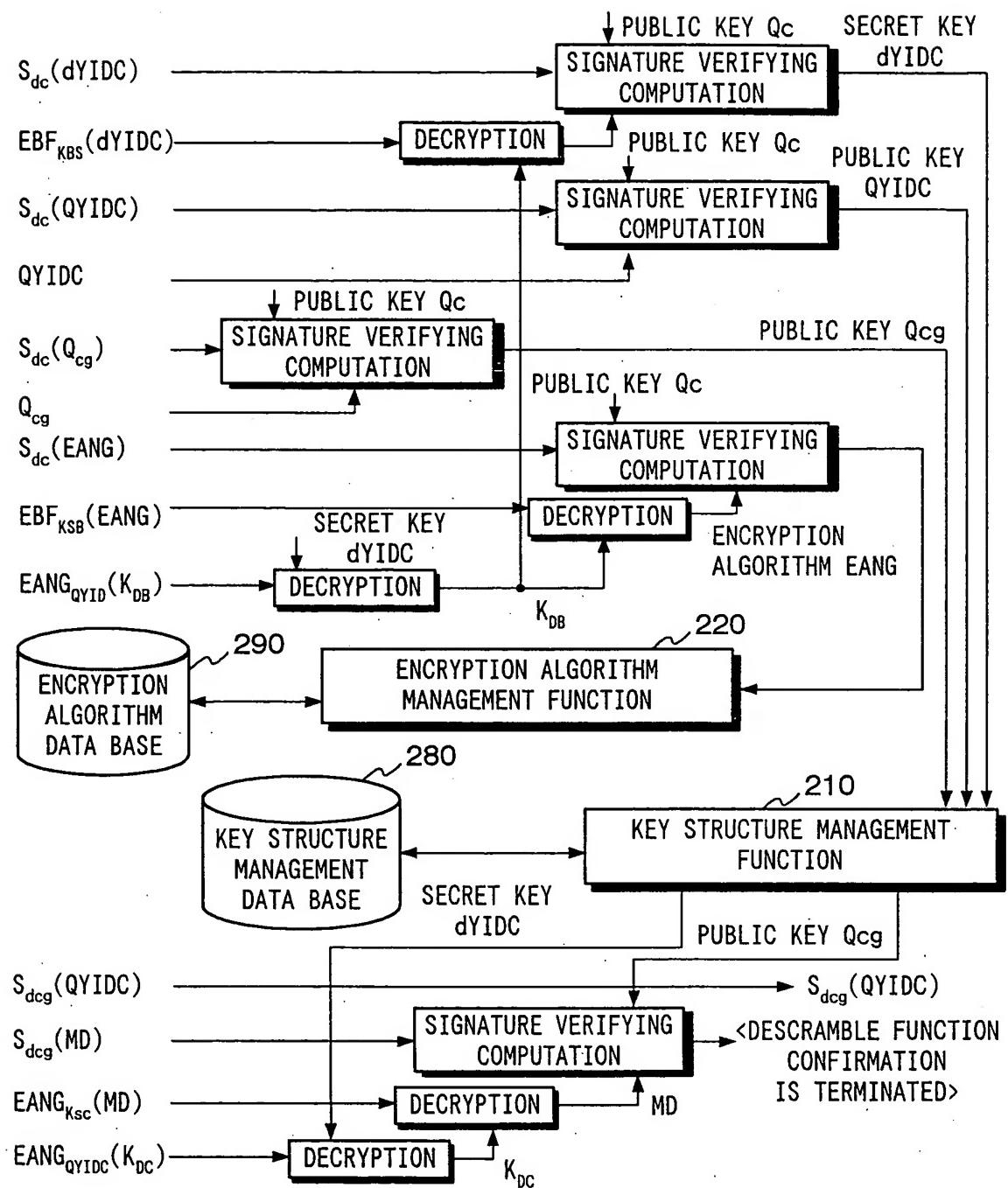


FIG. 15

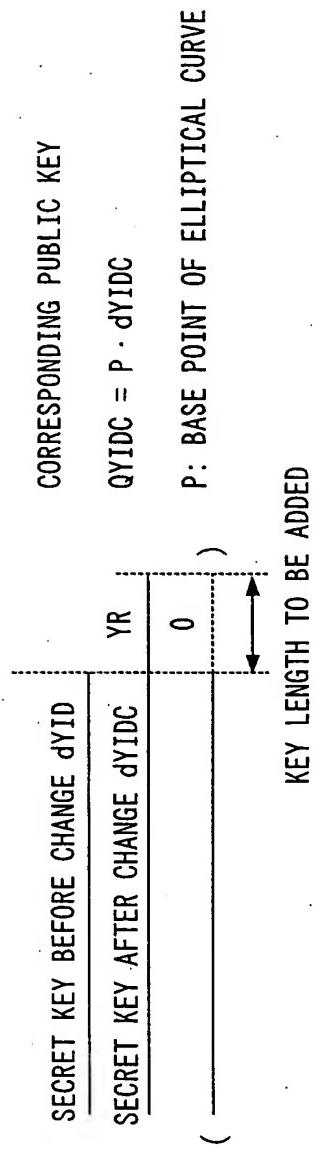
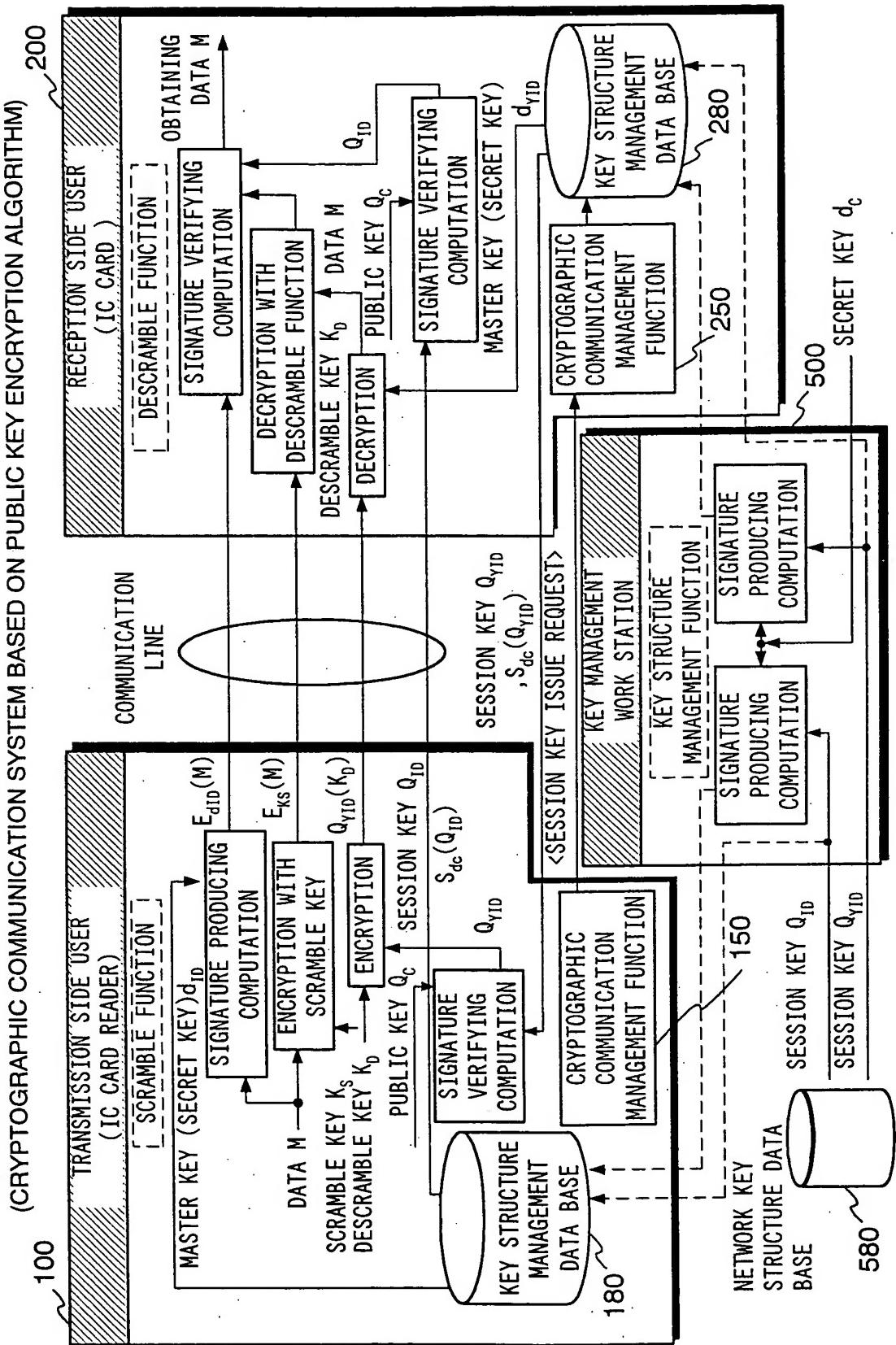
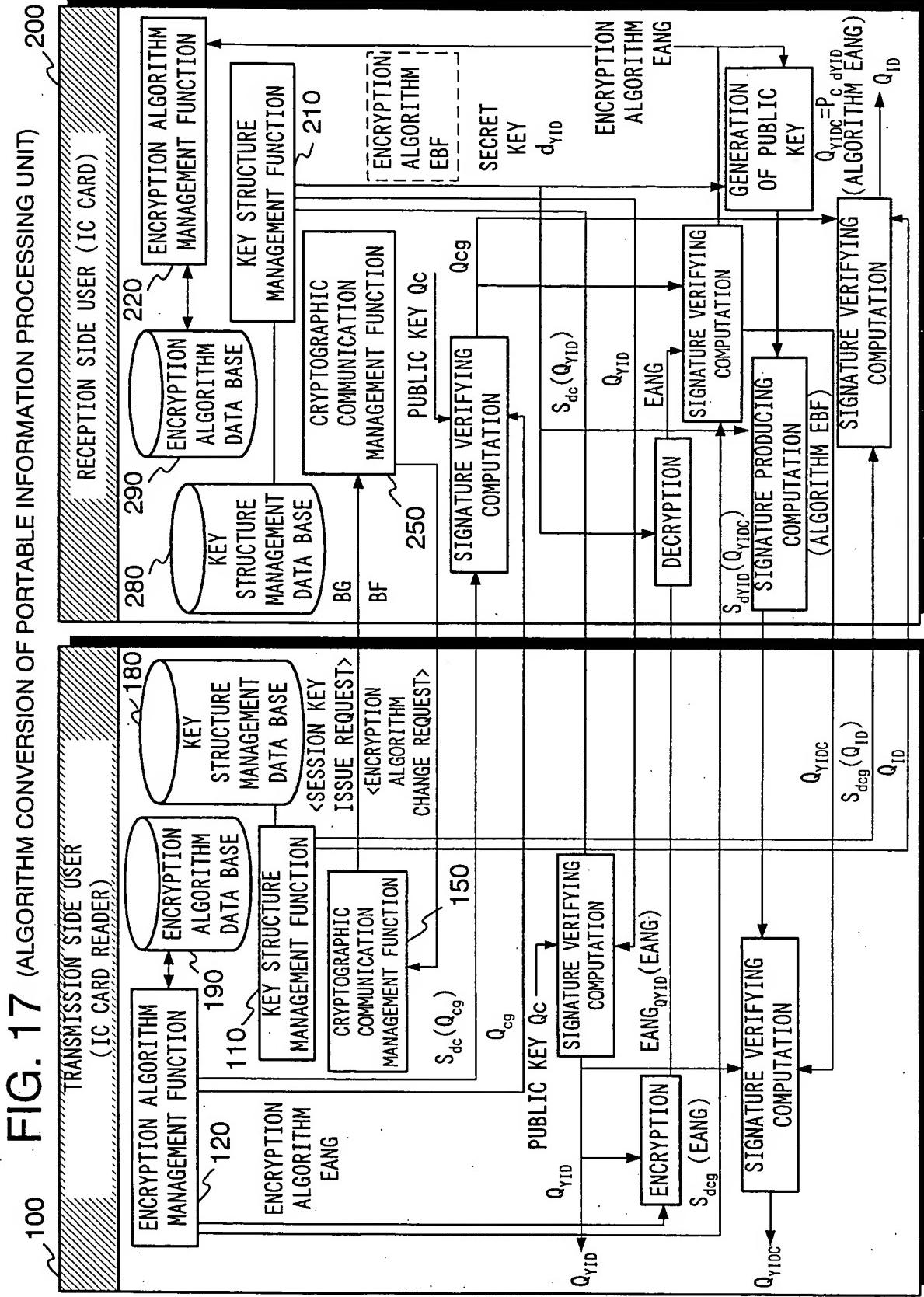
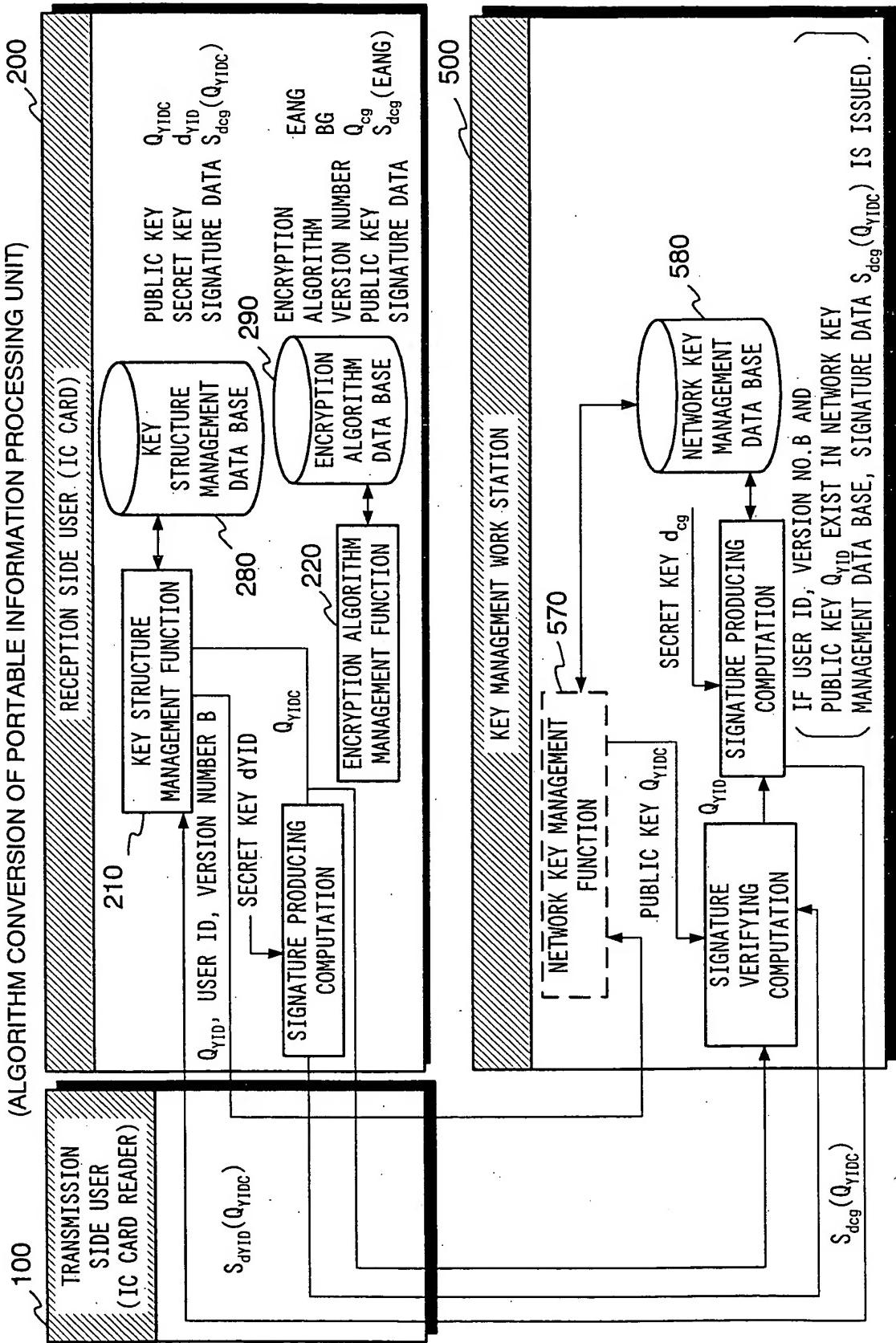


FIG. 16





**FIG. 18**  
(ALGORITHM CONVERSION OF PORTABLE INFORMATION PROCESSING UNIT)



**FIG. 19**  
(DATA BASE OF KEY AND ENCRYPTION ALGORITHM)

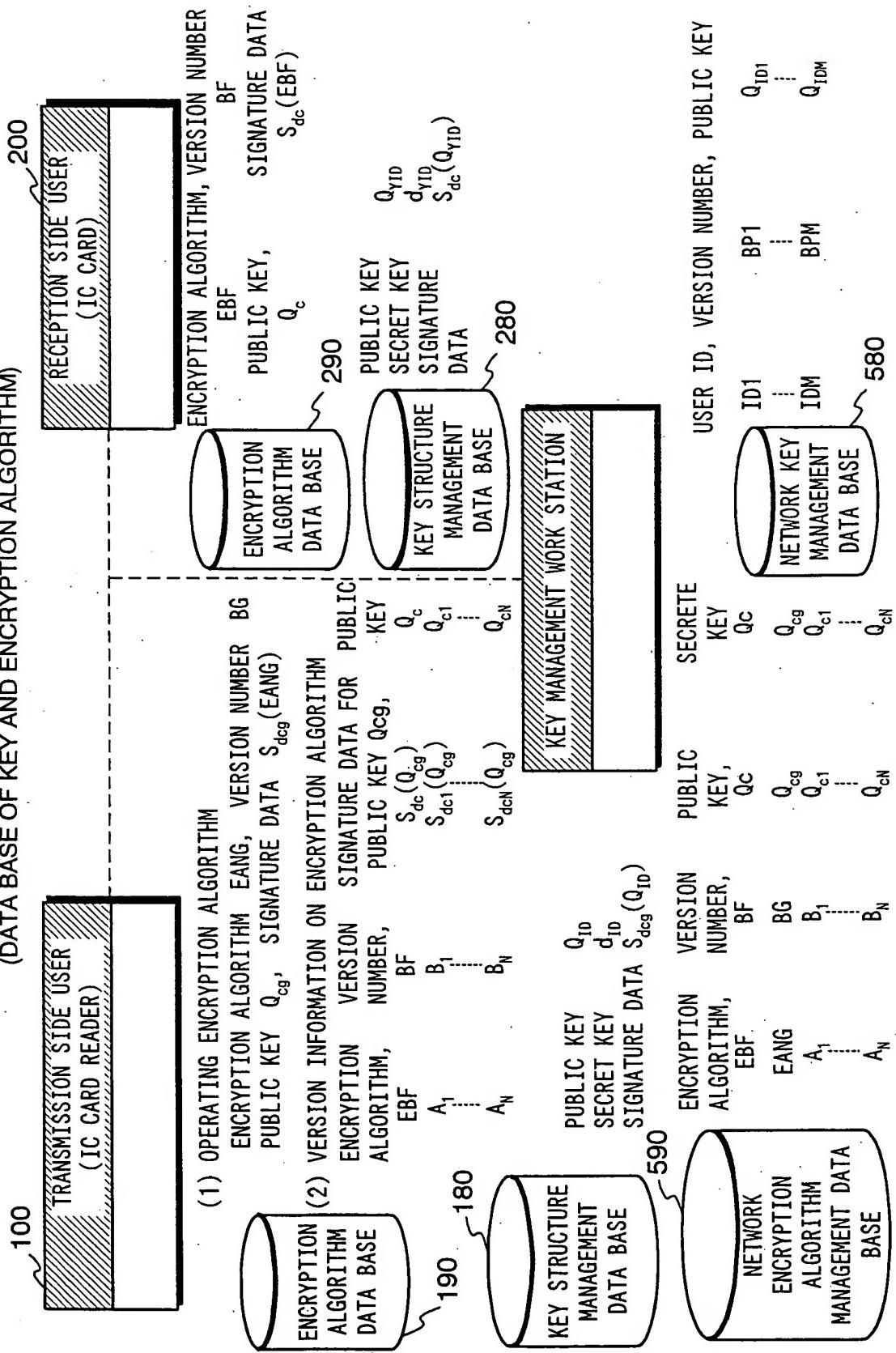


FIG. 20

500 (ENCRYPTION ALGORITHM CONVERSION FOR USER TO GENERATE HIS OWN KEY) 200

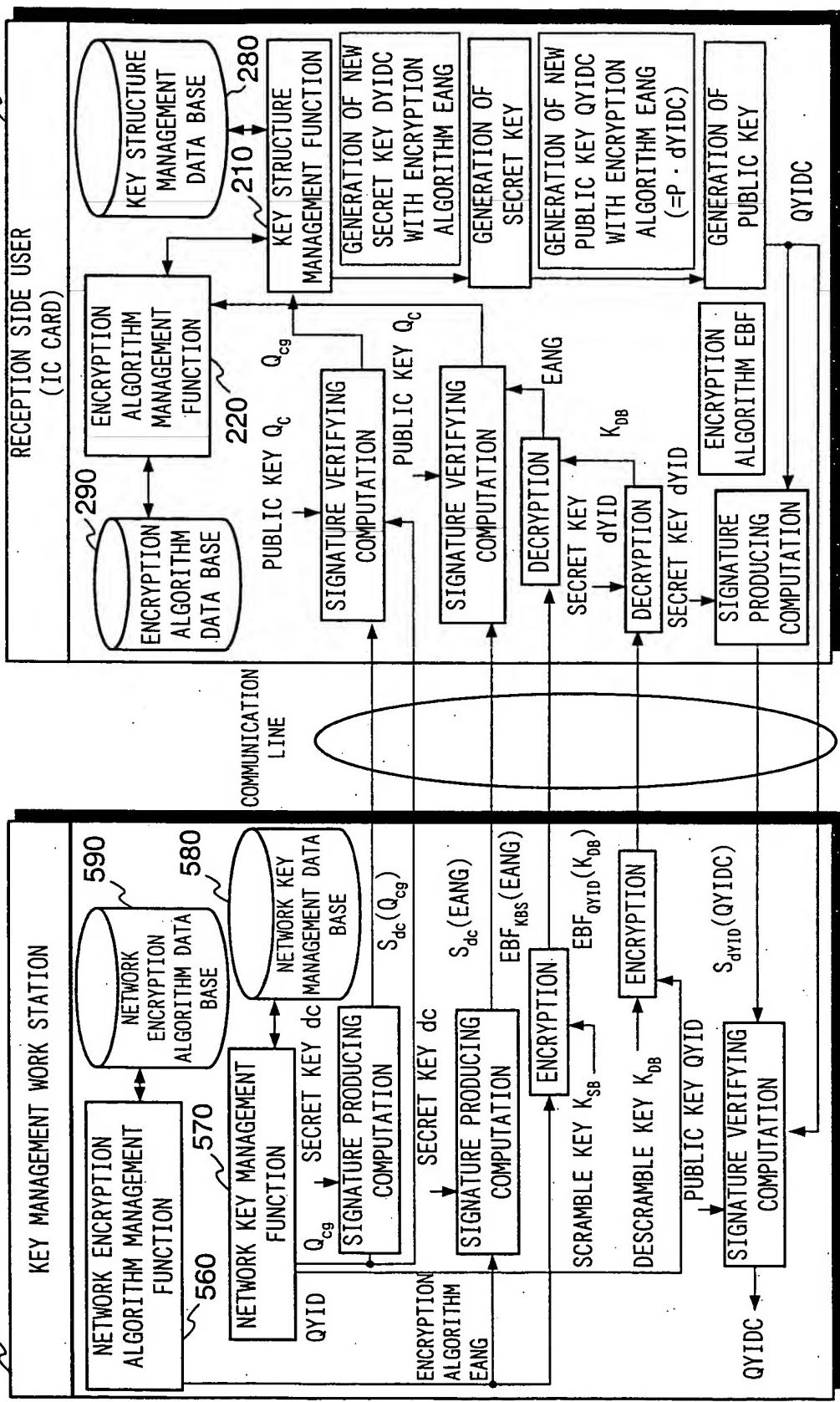
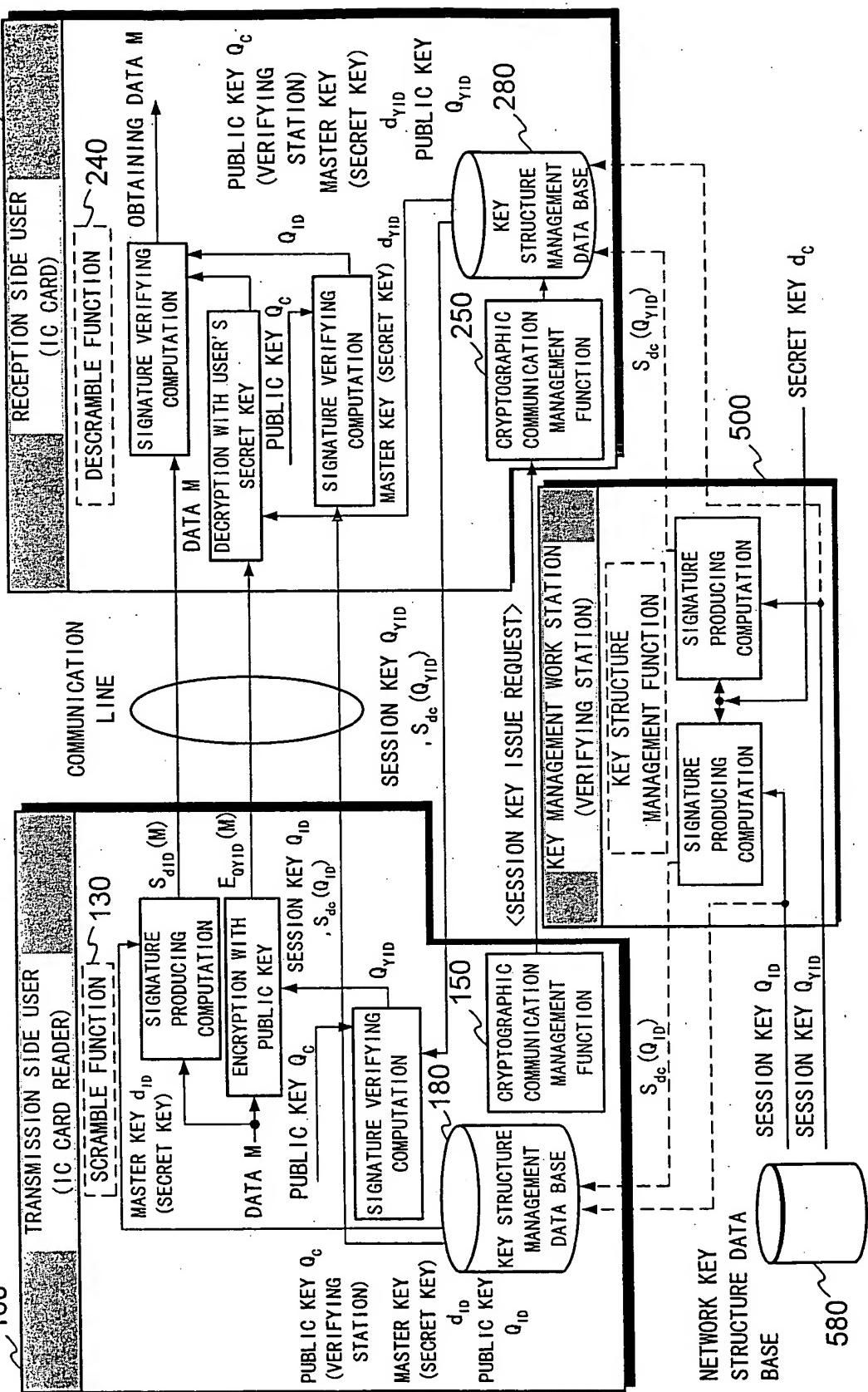
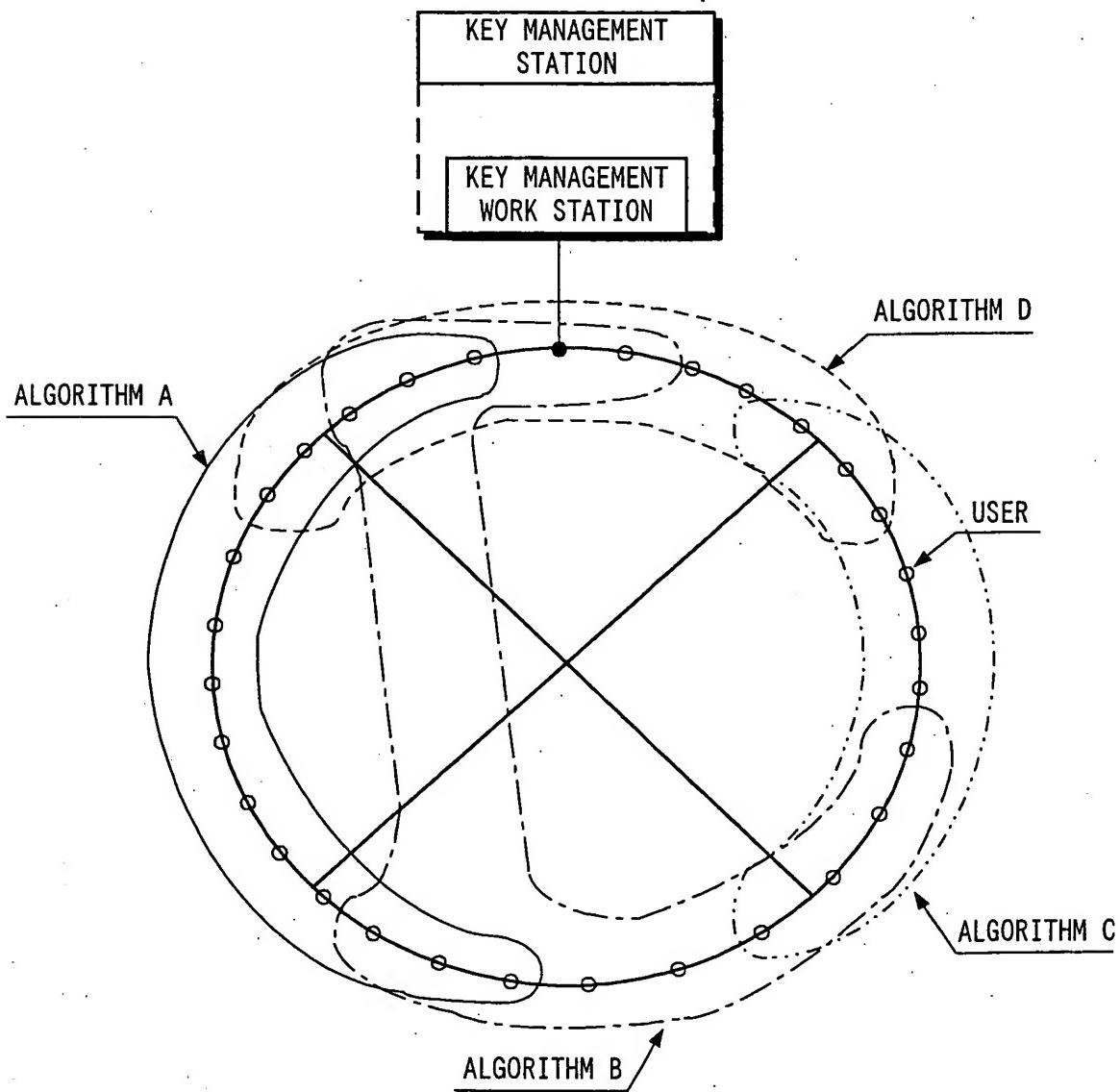


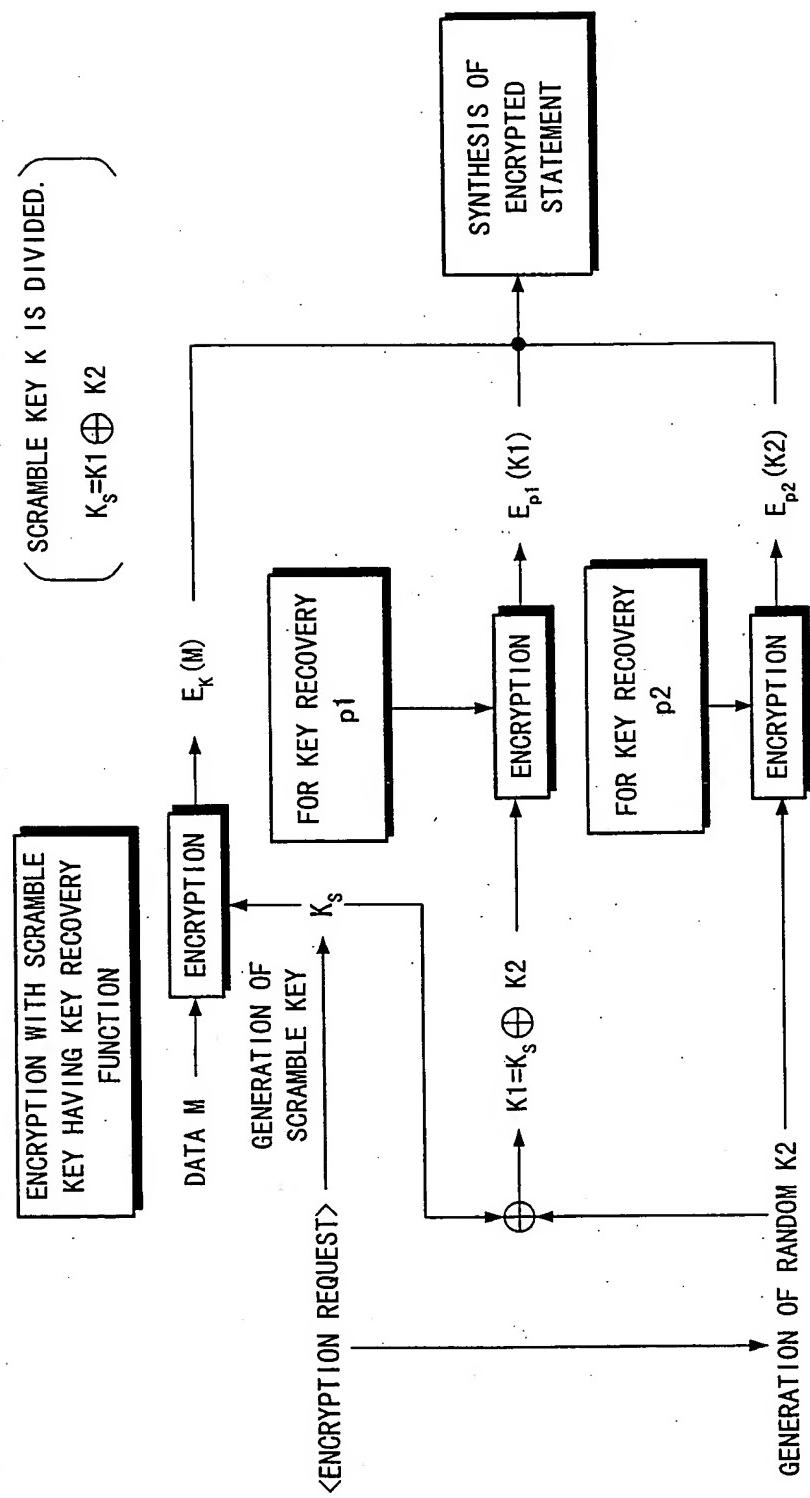
FIG. 21  
(CRYPTOGRAPHIC COMMUNICATION SYSTEM WITH PUBLIC KEY ENCRYPTION ALGORITHM)  
100 200 240 280 500 580



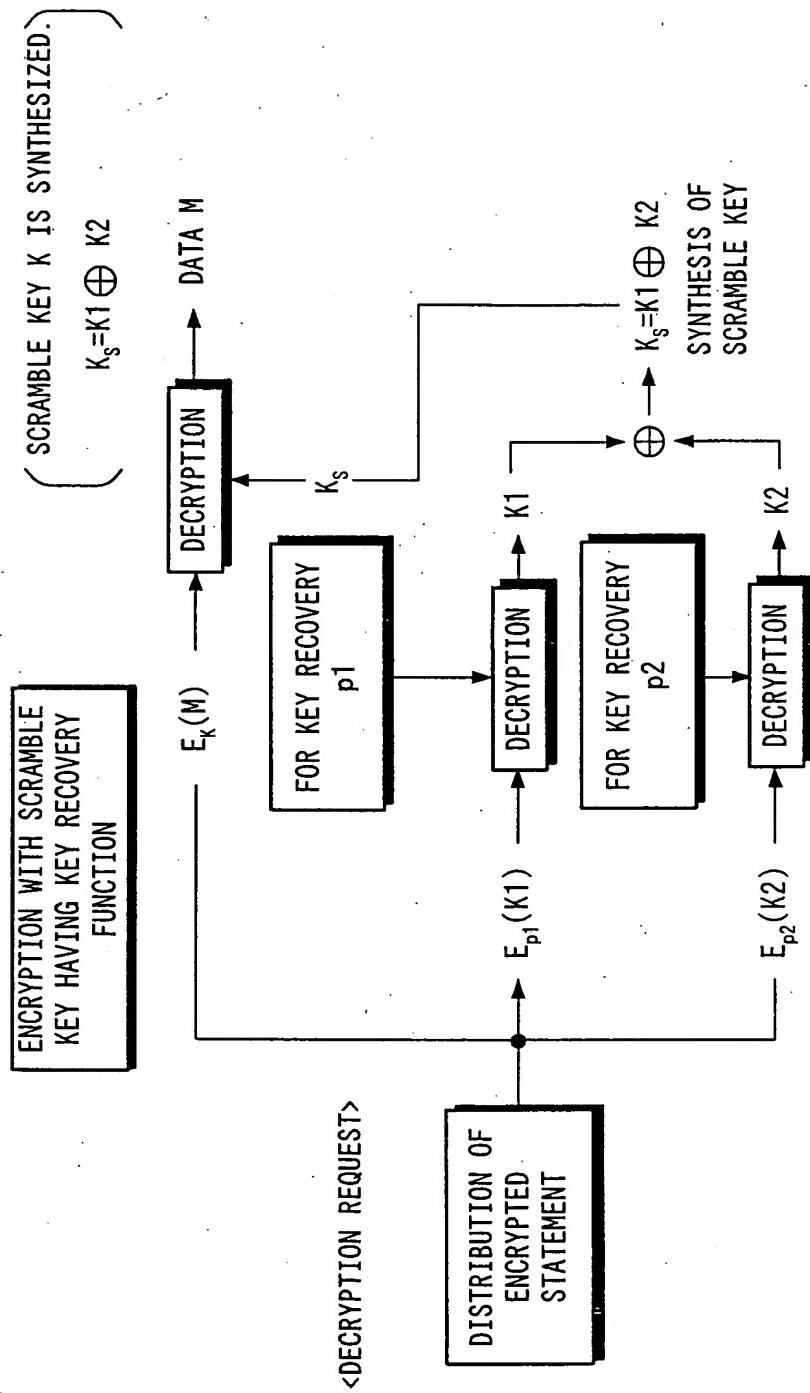
**FIG. 22**  
(NETWORK COMMUNICATION SYSTEM  
IN WHICH A PLURALITY OF ENCRYPTION ALGORITHMS EXIST)



**FIG. 23**  
**(KEY RECOVERY FUNCTION (ENCRYPTION))**



**FIG. 24**  
(KEY RECOVERY FUNCTION (DECRYPTION))



**FIG. 25** (IC CARD ALGORITHM CONVERSION)

